

15 May 1962

MEMORANDUM FOR THE RECORD:

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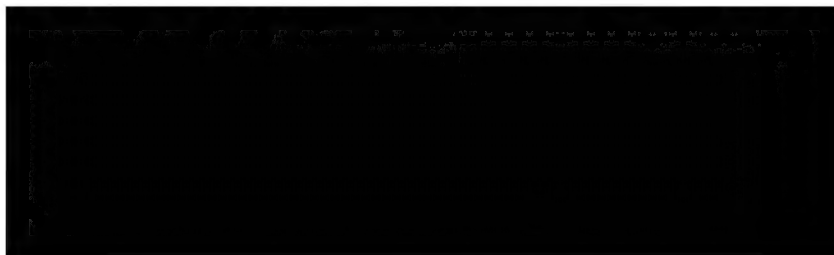
SUBJECT: Interference Problem at [REDACTED]

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1. There is a very strong possibility that an interference problem may arise at [REDACTED] involving Agency radar gear and other Federal and commercial communication facilities. On 9 May 1962 a conference was held at the [REDACTED] to discuss this problem. The following personnel were in attendance:

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This problem can be defined in two parts. First, the interference effect of other communications systems on A-12 testing operations; and secondly, the interference effects of the Agency's equipment on other communicators. The equipment at the [REDACTED] involved in this problem is a tracking radar system which will be used to determine radar profiles of the A-12 vehicle during flight tests. The frequencies to be used are those which are commonly used by

[REDACTED]
frequencies have not been cleared with the FCC. This equipment has been developed by EG & G and is scheduled to go into operation during June.

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2. Two sources of interference to the equipment are anticipated. There is a one-watt TV transmitter in [REDACTED] (approximately 20 miles distant). Field intensity measurements made in the vicinity of the 60-foot dish indicate that the signal strength of this transmitter would be less than 1 microvolt and will probably not constitute a serious problem. Another source of interference may be the AEC communications network, also located in [REDACTED] and installed and maintained by [REDACTED]. The AEC communications network is operating in the 170 mc range. The most likely source of interference will be from one of the repeater stations, located at [REDACTED]. This repeater station is now transmitting at 60 watts and field intensities in the vicinity of the dish appear to be below 2 microvolts. However, the power of the repeater station is scheduled to be raised to 250 watts in the near future and may constitute a more serious problem of interference at that time.

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25X1A 3. The interference effects of the EG & G equipment will be considerably more far reaching. It appears likely that during operations of the 170 mc tracking frequency the entire AEC communications network (involving some 2000 stations) will be put off the air. This frequency will also interfere with the communications networks for the SAGE early warning station located at [REDACTED] some 40 miles distant. The 70 mc frequency will most likely swamp the local Channel 4 TV repeater stations which are used throughout the [REDACTED] testing site. Just how great the effect of this frequency on more distant TV stations will be has not yet been determined, but it is known that EG & G testing at 70 mc with 20 kilowatts of power has produced interference as far away as Kansas City. Full output power at this frequency will be 1 megawatt. Another possible problem may evolve from the fact that [REDACTED]

25X1A [REDACTED] test site. According to [REDACTED] there is a strong likelihood that RF transmissions of the frequency and intensity planned for use at the [REDACTED] may very well interfere with the planned scheduling of the blasts. 25X1A

25X1A 4. The solution to these interference problems is not readily apparent, but [REDACTED] appears to be willing to cooperate in any way possible in making changes to the AEC networks which may permit all concerned to maintain consistent and reliable communications. It seems likely that the possible interference difficulties which may come about between the AEC and the Agency can be resolved by discussion, compromise, and money. Tests are being made at this time by Mr. Don White of EG & G to determine quantitative figures on the predicted interference problem. Avoidance of the interference to the commercial TV networks which most certainly would be caused by the EG & G equipment is another problem altogether, since it is not feasible to expect commercial companies to change their broadcasting frequencies. This problem would seem to be nearly insoluble and a completely satisfactory solution is not likely to be found.

5. It is suggested that a meeting be held as soon as possible between Agency personnel responsible for the Agency's interests, representatives from [REDACTED] and EG & G in order to arrive at the best and most practical solution to this interference problem.

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